

Remarks

The Examiner has rejected claims 1-6, 9, 10, 13, 17, 20 and 21 under 35 USC 102(b) as being anticipated by Pawlowski (EP 1,033,624). The Examiner has also rejected claims 7, 8, 11, 18 and 19 under 35 USC 103(a) as being unpatentable over Pawlowski in view of Jung (US 6,803,172).

Claims 1, 4, 5, 7, 8, 19 and 21 have been amended. Claim 6 has been deleted and new claims 22-30 have been added. Support for claim 21 is on page 10, lines 14-20 of the specification. All the claims are fully supported by the specification. No new matter has been added.

Pawlowski discloses only compositions useful as a photoresist, especially a negative photoresist comprising a nonabsorbing polymer, a crosslinker and a photoacid generator. Pawlowski does not specifically disclose an antireflective coating composition comprising a polymer which must be absorbing and hence must comprise a polymer with an absorbing group. The compositions of claim 1 and 4 further comprise a vinyl ether terminated crosslinker and a thermal acid generator. Pawlowski does not disclose a thermal acid generator in the coating composition. Thus independent claim 1 and 4 are not anticipated by Pawlowski.

Claims 22 and 27 relate to an antireflective coating, where the polymer must comprise an absorbing chromophore selected from a substituted or unsubstituted anthracyl group, a substituted or unsubstituted phenanthryl group, a substituted or unsubstituted naphthyl group, a substituted or an unsubstituted heterocyclic aromatic rings containing heteroatoms selected from oxygen, nitrogen, sulfur, and a mixture thereof. Pawlowski does not disclose a crosslinkable composition, where the polymer must comprise an absorbing chromophore selected from a substituted or unsubstituted anthracyl group, a

substituted or unsubstituted phenanthryl group, a substituted or unsubstituted naphthyl group, a substituted or an unsubstituted heterocyclic aromatic rings containing heteroatoms selected from oxygen, nitrogen, sulfur, and a mixture thereof.

Antireflective coatings have to be capable of absorbing radiation used to expose the photoresist coated above the antireflective coating. On the other hand photoresist coatings cannot be absorbing because they have to allow light to travel to the very bottom of the layer to form an image. Thus polymers in the photoresist that absorb radiation used for exposure are highly undesirable. Pawlowski teaches away from absorption in the photoresist at the irradiation wavelength, as disclosed in [0062] of the reference.

The prior art does not disclose an antireflective coating composition that must be capable of absorbing the radiation used to expose the photoresist.

The applicants believe that the presently amended claims are not anticipated or made obvious by the prior art.

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In view of the above amendments and remarks, the present application is believed to be in condition for allowance, and reconsideration of it is requested. If the Examiner disagrees, she is requested to contact the attorney for Applicants at the telephone number provided below.

Respectfully submitted,



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